



California Public Utilities Commission

RENEWABLES PORTFOLIO STANDARD Quarterly Report



2nd Quarter 2014



I. ABOUT THE RPS AND THIS REPORT

California is aggressively bringing renewable generation online to meet its Renewables Portfolio Standard (RPS), one of the most ambitious renewable standards in the country.

California's RPS, codified in Public Utilities Code §§ 399.11 – 399.32¹, requires retail sellers, investor-owned utilities (IOUs), electric service providers (ESPs) and community choice aggregators (CCAs) regulated by the California Public Utilities Commission (CPUC or the Commission) to procure 33% of their annual retail sales from eligible renewable sources by 2020. The RPS also requires retail sellers to achieve intermediate RPS targets of 20% from 2011-2013 and 25% from 2014-2016. The CPUC and the California Energy Commission (CEC) are jointly responsible for implementing California's 33% RPS program.

While the RPS program is the primary vehicle for new utility-scale renewable energy development in California, there are other programs that stimulate development of customer-side renewable generation. The California Solar Initiative (CSI) and Self-Generation Incentive Program (SGIP) provide incentives for customers to install renewable distributed generation technologies that directly serve their on-site load.² The electricity generated from power systems installed through CSI and SGIP may contribute to the RPS provided they meet RPS eligibility requirements established by the CEC.³ In addition, electricity generated by these facilities indirectly contributes to the RPS by reducing demand when serving customer load.

The Commission issues this report on the RPS program every quarter pursuant to the 2006 Budget Act Supplemental Report Item 8660-001-0462. This report focuses on California's three large IOUs: Pacific Gas and Electric (PG&E), Southern California Edison (SCE), and San Diego Gas & Electric (SDG&E). These IOUs currently provide approximately 68% of the state's electric retail sales, and analyzing this data provides significant insight into the state's RPS progress.

¹ California's 20% RPS by 2020 was established in 2002 under Senate Bill (SB) 1078 (Sher) and modified in 2006 under SB 107 (Simitian). SB 2 of the First Extraordinary Session (SB 2 (1x)) (Simitian) (Stats. 2011, ch.1) expanded the mandate to a 33% RPS by 2020.

² More information on the CSI and SGIP can be found on the CPUC's website: <http://www.cpuc.ca.gov/PUC/energy/DistGen/>.

³ In the case of renewable customer generation, the system-owner owns the renewable energy credits (RECs), but could sell the RECs to retail sellers to contribute to their RPS targets.

II. EXECUTIVE SUMMARY

Status of RPS Procurement

- On April 1, 2014, the large IOUs reported in their 33% RPS Procurement Progress Reports that they collectively served 20.9% of their retail electric load with RPS-eligible generation during the first compliance period (CP 1) from 2011-13. PG&E served 20.6% of its CP 1 retail sales with RPS-eligible renewable energy, SCE with 20.7% and SDG&E with 21.6%. Pursuant to the procurement requirements in SB 2 (1X), the IOUs must average 20% renewable energy during CP 1.
- Since 2003, 7,501 MW of renewable capacity has achieved commercial operation under the RPS program. Thus far, more than 861 MW of renewable capacity has come online in 2014 and over 2,668 additional MW is scheduled to come online before the end of 2014.
- In the second quarter of 2014, the Commission approved 21 RPS power purchase agreements (PPAs), representing 51 MW of renewable capacity.

Highlights of Recent Events

- On April 8, 2014, Energy Division issued a staff proposal to reform the RPS procurement review process. Comments and reply comments were received from parties on May 7, 2014 and May 28, 2014, respectively.
- In April 2014, the IOUs filed RPS shortlists resulting from their 2013 RPS Solicitation for Commission approval. Upon Commission approval, the IOUs may begin negotiating executing PPAs with shortlisted bids.

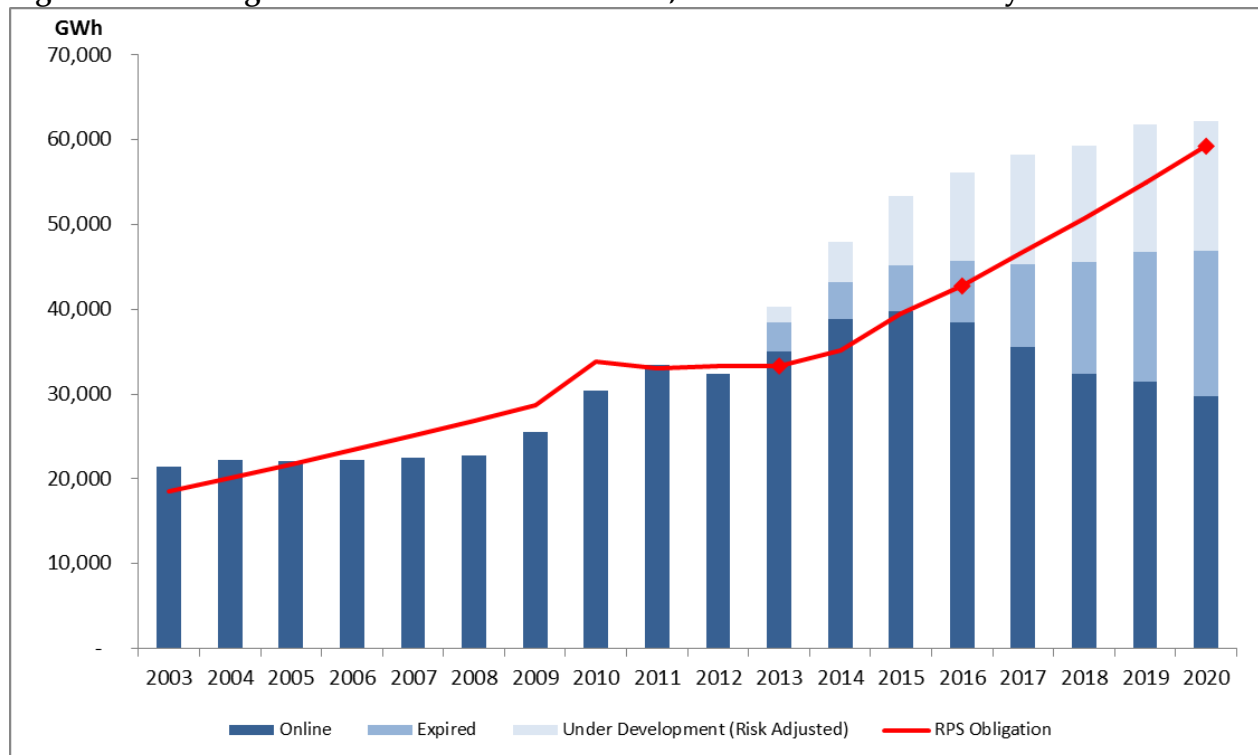
III. PROGRESS TOWARDS A 33% RPS BY 2020

PROGRESS TOWARDS A 33% RPS

California is aggressively procuring renewable generation to ensure that 33% of retail sales is met with renewable energy resources by 2020. The figure below shows progress toward meeting that mandate, on a risk adjusted basis.⁴ The IOUs reported meeting the 20% requirement for CP 1 in their April 1, 2014 RPS Procurement Progress Reports.⁵ These reports also show that the IOUs are on track to meet the RPS requirement of 25% renewables by 2016, and are well-positioned to meet the 33% requirement by 2020.

While the figure below forecasts a surplus of renewable generation for CP 2 and a deficit for CP 3, it should be noted that the IOUs have the option to bank surplus CP 2 RPS generation and apply it toward meeting RPS obligations in CP 3 or beyond. IOUs are also planning for additional procurement in CP 2, CP 3, and post-2020 in order to achieve 33% in 2020 and every year thereafter.

Figure 1: IOU Progress Towards 33% Renewables, Actual and Forecasted by Year^{6,7}



⁴ Values are risk adjusted to account for a certain degree of project failure. The failure rate assumptions used for each IOU are those provided by the IOUs in their 2014 RPS Plans. On average, PG&E assumes a 10% failure rate for new projects not yet online, SCE assumes a 25% failure rate for new projects not yet online, and SDG&E assumes a 14% failure rate for new projects not yet online.

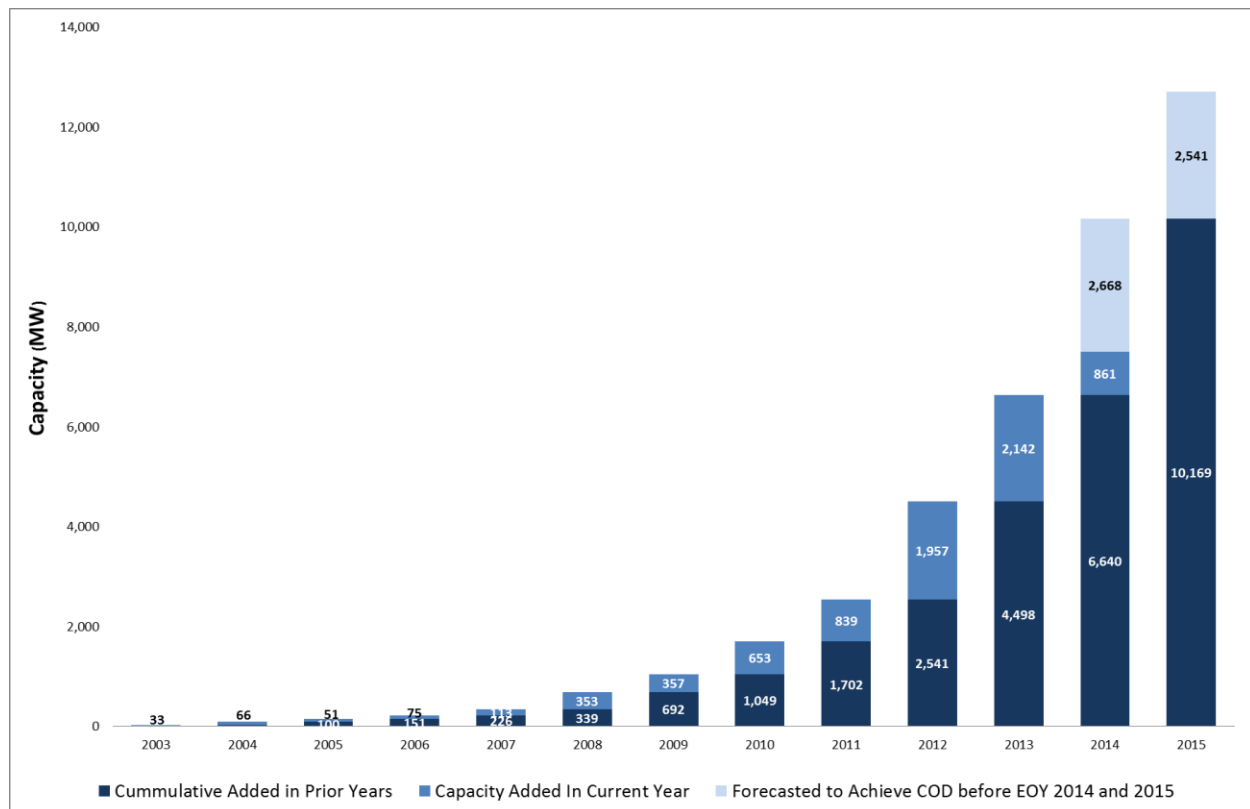
⁵ A final compliance determination is made by the CPUC on "Verified" RPS compliance reports, which are submitted after the CEC completes its RPS Verification analysis, which is not expected until Q4 2015.

⁶ Forecast does not assume re-contracting of contracts with a term that expires between 2014 and 2020.

NEW RENEWABLE CAPACITY ADDED IN 2014

Since 2003, 7,501 MW of renewable capacity achieved commercial operation under the RPS program. In 2014, more than 861 MW of renewable capacity came online in the first and second quarters, and another 2,668 MW of capacity is forecasted to reach commercial operation by the end of the year. The 3,529 MW of renewable generation capacity forecasted to come online in 2014 would represent the largest year-to-year increase in capacity since the beginning of the RPS program. An additional 2,541 MW of renewable capacity is forecasted to come online in 2015.

Figure 2: RPS Capacity Installed Since 2003, By Year^{8,9}



⁷ Data Source: 2003-2010 data sourced from the Final 20% RPS Closing Report (January 2014); 2011-2020 data sourced from the Annual 33% Compliance Reports (August 2014).

⁸ Data Source: RPS Project Database submission (August 1, 2014)

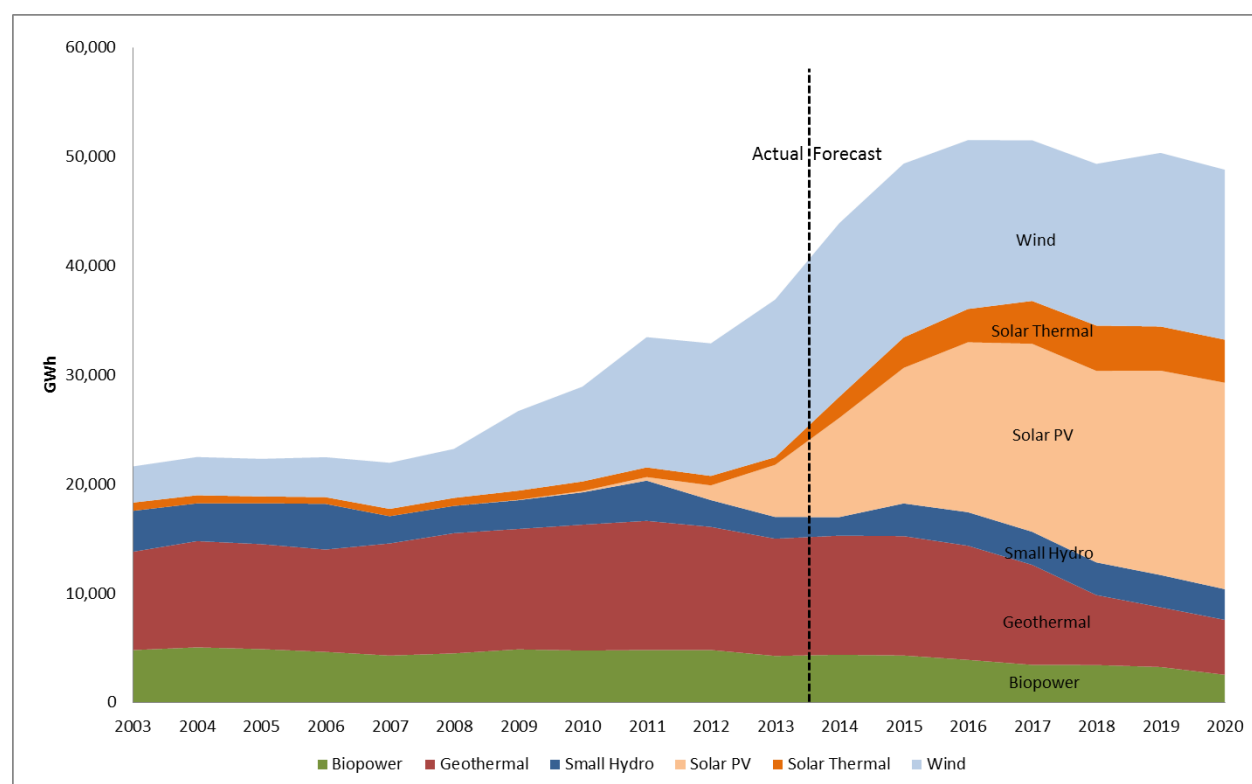
⁹ The actual capacity data for 2014 in this report (3,529 MW) differs from the forecast capacity data in the Q1 2014 RPS quarterly report (3,828) because: 1) some of the forecast MWs expected to be developed in 2013 are now expected in 2014, and 2) some PPAs associated with MWs forecast for 2014 were terminated because the associated projects did not meet their contractual obligations.

RPS RENEWABLE RESOURCE MIX

The mix of technologies bidding into and receiving PPAs through RPS solicitations has shifted over the life of the RPS program. This shift is forecasted to dramatically alter the relative contribution to the RPS goals provided by different renewable technologies in 2020.

In 2014, wind and geothermal generating facilities supplied the majority of California's renewable generation (contributing 36% and 25%, respectively). The generation mix in 2020 is expected to reflect a considerable increase in generation coming online from new solar PV and solar thermal generating facilities. These technologies are forecasted to contribute 32% and 10%, respectively, of the state's total renewable generation by 2020. The figure below displays California's actual and forecasted mix of renewable generation by technology type through 2020.

Figure 3: Renewable Resource Mix, Actual and Forecasted by Year¹⁰



¹⁰ Data Source: IOUs' Annual 33% Compliance Reports (August 1, 2014). Figure 3 only depicts existing IOU renewable contracts. It does not account for facilities that may be online and may receive new contracts after their current contracts expire.

RPS CONTRACTING ACTIVITIES IN 2014

Since 2002, the Commission has approved more than 360 RPS PPAs for over 20,000 MW of renewable capacity. As Table 1 below shows, the Commission approved 21 additional contracts in the second quarter of 2014, representing 51 MW of RPS capacity.

Table 1: IOU RPS-Eligible Contracts Submitted and/or Approved in 2014¹¹

		PGE		SCE		SDGE		Total	
		Number of Contracts	MW	Number of Contracts	MW	Number of Contracts	MW	Number of Contracts	MW
Q1	Submitted	6	338	20	33	0	0	26	371
	Pending	9	338	20	33	0	0	29	371
	Approved	14	208	0	0	0	0	14	208
Q2	Submitted	0	0	0	0	0	0	0	0
	Pending	5	320	0	0	0	0	5	320
	Approved	1	18	20	33	0	0	21	51

¹¹ Data Source: Energy Division Staff Data Request to IOUs for quarterly contracts submitted/approved.

V. RECENT AND UPCOMING EVENTS

Timing	Deliverable	Notes
April 1, 2014	RPS Procurement Progress Reports and PDSRs	The Large IOUs filed updated 33% RPS Procurement Progress Reports and Project Development Status Reports on April 1, 2014. The reports provide updated information on RPS procurement and project milestones.
April 8, 2014	ALJ Ruling Seeking Comments: RPS Procurement Reform	An ALJ Ruling was issued seeking comments on a revised staff proposal to improve the RPS procurement process. Comments were submitted May 7, 2014 and reply comments were submitted May 28, 2014.
May 21, 2014	ALJ Ruling Adopting Updates to RNS Methodology	An ALJ Ruling updated the RNS methodology and key RNS assumptions. These updates to the RNS can be seen in the 2014 RPS Plan filings.
June 11, 2014	2014 RPS Plans Filings	IOUs and ESPs filed their draft 2014 RPS Plans for review by the Commission.
August 1, 2014	Annual 33% RPS Compliance Report Filings	All retail sellers submitted 33% RPS Procurement Progress Reports which included updated RPS procurement information for the first Compliance Period (2011-2013).
Third Quarter 2014	ALJ Ruling Seeking Comments: Revised RPS Calculator	An ALJ Ruling seeking comments on proposed revisions to the RPS calculator is expected to be issued.
Fourth Quarter 2014	Proposed Decision: RPS Compliance and Enforcement	A proposed decision regarding compliance rules and enforcement issues in the RPS program is expected to be issued.
Fourth Quarter 2014	Annual 33% RPS Compliance Report Adoption Ruling	Following the adoption of an Enforcement Decision, Energy Division staff plans to initiate a stakeholder process to refine the 33% RPS Compliance Report template and formally adopt a spreadsheet for use in the RPS compliance program.
Fourth Quarter 2014	20% RPS Closing Report Notification Letters	Following the adoption of an Enforcement Decision, the Energy Division Director plans to issue a letter to retail sellers notifying them of their final 20% RPS compliance position.
Fourth Quarter 2014	Proposed Decision: 2014 RPS Plans and Future of Renewable Auction Mechanism Program	The Commission is expected to issue a proposed decision on IOUs' and ESPs' 2014 RPS Plans. The Decision is also expected to include directives on the potential reauthorization and future direction of the Renewable Auction Mechanism Program.

Timing	Deliverable	Notes
Fourth Quarter 2014	Proposed Decision: SB 1122	The Commission is expected to issue a proposed decision for the implementation of SB 1122, which requires investor owned utilities to procure 250 MW of bioenergy.